Alternative fueled vehicles part of Fort Carson fleet

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Alternative fuel vehicle use on Fort Carson has been underway for several years at its Transportation Motor Pool. Administrative fleet vehicles fueled by compressed natural gas, ethanol and combination fuels have been integrated into transportation operations. The AFVs burn cleaner causing less air emissions and are generally less expensive fuel compared to gasoline.

Fort Carson's TMP fleet has been well on its way in complying with Executive Order 13149, Greening the Government through Federal Fleet and Transportation Efficiency, which requires that 75 percent of new vehicle acquisitions be AFVs since fiscal year 1999 and thereafter. The use of AFVs also ties in to the Fort Carson sustainability goal to use renewable energy sources.

In 2004, the TMP leased its first electric hybrids, which run on battery power and gasoline, for the fleet. The electric hybrid battery pack is designed to last up to 10 years and do not require charging, according to the manufacturer. One tank of gasoline can fuel the hybrid for up to 650 miles

A total of five hybrids were leased and issued to the Directorate of Environmental Compliance and Management, the Directorate of Community Activities, the Medical Department Activity and the Directorate of Logistics, which has two hybrids.

According to Dave Cruz, TMP project manager, the electric hybrid vehicles are performing well and have had no adverse maintenance requirements the first year of their lease.

Currently, 190 out of the 396 TMP vehicles, or 47 percent, are AFVs. This number will increase annually based on GSA lease vehicle replacement standards. AFVs in the fleet include:

- 7 vehicles that run on compressed natural gas.
- 102 Ethanol (E85) capable vehicles. E85 fuel is 85 percent ethanol made from corn.
- 76 bi-fuel vehicles that have two separate fuel systems, which operate independently. The vehicles of this type in the TMP fleet run on compressed natural gas and gasoline and are commonly called CNG2 vehicles.

A pilot biodiesel fuel initiative in 2004 took the use of AFVs a step further on Fort Carson. Through funding provided by DECAM, DOL upgraded seven vehicles, which included pick up trucks and blazers, to run on biodiesel. The pilot project included the purchase of 1,000 gallons of B20 biodiesel (20 percent vegetable oil and 80 percent diesel).

An engine upgrade is not necessary for newer model vehicles to run on B20, however, since it has a slight corrosive property to it, the older vehicles used for the pilot program required some changes to the engine to run on the biodiesel, said Scott Clark, Fort Carson Pollution Prevention Coordinator.

According to Larry Martin, wheel shop lead contractor for DOL, the vehicles in the pilot program required replacement of parts with rubber, including the fuel filter, lines and injector pumps. The upgrade cost approximately $2,000 per vehicle. The biodiesel project to date is proving that the vehicles are performing well with the lighter B20 fuel, said Martin, especially during winter time when the engine warm up is faster. The vehicles also get the same miles per gallon fuel efficiency.

For more information on Fort Carson AFVs, call the Fort Carson Pollution Prevention Coordinator at 526-1739.